DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
INFORMATION TECHNOLOGY OFFICE (ITO)
PLANNED PROCUREMENTS
May 1998

PROGRAM DESCRIPTION	FUNDING	SCHEDULE	PROGRAM MGR
Adaptive Computing Systems (ACS): The technology focus for this program is on higher order development environments for ACS: exploitation of fault-tolerant capabilities of ACS devices; vendor-neutral representations of intermediate data used to represent circuitry; and order of magnitude reduction in compilation times.	$20M	BAA 4QFY98 Total program: 3-4 years	Dr. Jose L. Munoz ITO
Global Mobile (GloMo) Information Systems: The GloMo program will enable mobile users to access and utilize the full range of services available in the Defense Information Infrastructure. To achieve this goal, the program will develop and integrate technologies and techniques at the applications, networking, and wireless link/node levels.	$7M	BAA 4QFY98 Total program: 2 years	Mr. Robert J. Ruth ITO
Information Management: This program strives to increase the Defense analyst's ability to apply global information resources to situation understanding. This is accomplished through parallel efforts on a number of fronts: (1) technology to register, classify, and manage multimedia document streams; (2) knowledge-based and statistical techniques to analyze large multi-source collections; and (3) multi-lingual information analysis.	$15M	BAA 4QFY98 Total program: 3-4 years	Dr. Ron Larsen ITO
Active Networks: This program will focus on high-speed and secure implementations of active network switches and routers. "Paradigm breaking" services that offer significant new capabilities via active nets technology are also of interest.	$20M	BAA 1QFY99 Total program: 3-4 years	Ms. Hilarie Orman ITO

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Active Software Composition: The technology focus of this program is the development of component-based software that is dynamically composed and reconfigured at run-time. This software will be aware of its mission and have run-time support for evaluation of its performance. The software will thus be self-organizing and able to modify and reconfigure itself in response to its self-evaluation.	$25M	BAA 1QFY99 Total program: 3-4 years	Dr. Robert Laddaga ITO
Communicator: The goal of the DARPA Communicator Program is to develop and demonstrate "dialog interaction" technology that enables warriors to talk with computers. Information will be accessible on the battlefield or in command centers without ever having to touch a keyboard. Dialog interaction software distributed in the network will use a new "dialog management and context tracking" capability to facilitate and coordinate conversations between human users and a suite of computer applications.	$20M	BAA 1QFY99 Total program: 3-4 years	Dr. Allen Sears ITO
Data Intensive Computing: This program will develop a new memory architecture for computing systems that allows data-starved Defense applications to run up to two orders-of-magnitude faster than they will on contemporary virtual memory systems. The new memory architecture will allow these applications to manage the placement and flow of their data as well as allow them to manipulate data in the memory subsystem itself.	$8M	BAA 1QFY99 Total program: 3-4 years	Dr. Jose L. Munoz ITO
Information Survivability: This program will develop focused technologies that support continued operation in the presence of successful attacks. These include technologies for analysis of intrusion reports to form a big picture of intruder intent and potential impact of intruder activity for use in information warfare indications and warning, technologies for attack tolerance via verifiable integrity of programs and data, thwarting denial-of-service attacks by constraining an attacker's resource consumption, and an investigation of highly decentralized systems as a new design paradigm for inherently survivable systems.	$60M	BAA 1QFY99 Total program: 3-4 years	Ms. Teresa Lunt ITO

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Next Generation Internet (NGI): NGI will develop technologies to enable more powerful and versatile networks. The FY99 planned procurement will relate to network engineering research that develops and demonstrates advanced network management and control and activities that facilitate revolutionary applications.	$10M	BAA 1QFY99 Total program: 2 years	Ms. Mari Maeda ITO
Software Enabled Control: The goal is new technologies for the composition of efficient and dependable multi-modal software controllers. The research includes novel control algorithm and control architectures that can exploit on-line, active physical models (both discrete and continuous) for improved prediction, diagnosis, and control adaptation.	$20M	BAA 1QFY99 Total program: 3-4 years	Dr. Helen Gill ITO